

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

I. Introduction

In the specification, paragraph 0029 has been amended. Claims 2, 3, 25 and 30 are requested to be cancelled. Claims 1, 4, 5, 6, 13, 16, 24, 26-29 and 31 are currently being amended. Support for the amendments is provided throughout the originally filed specification, such as in paragraphs [0024] and [0025], Figure 2 and originally filed claims 2-4. After amending the claims as set forth above, claims 1, 4-24, 26-29 and 31-36 are now pending in this application. No new matter was added.

II. The Objection Should Be Withdrawn

The specification was objected to due to informalities. In response, paragraph [0029] of the specification has been amended according to the examiner's helpful suggestion.

III. The §112 Rejections Should Be Withdrawn

Claims 1, 24 and 26 were rejected under §112, ¶2 because claim limitations lacked antecedent basis. In response, claims 1, 24 and 26 have been amended according to the examiner's helpful suggestion to provide a proper antecedent basis for the elements.

IV. The §102(e) Rejections Should Be Withdrawn

Claims 1-36 were rejected under §102(e) as being anticipated by Cable (US 2003/0077498). This rejection is respectfully traversed for the following reasons.

A. Claims 1 and 24

Claims 1 and 24 have been amended to recite “an electrically conductive interconnecting body comprising a continuous layer, sheet or foil.” A non-limiting example of such continuous conductive layer, sheet or foil 25 is illustrated in Figure 2 of the present application. This layer, sheet or foil 25 continuously extends between the ceramic layers 5 and 7 of the interconnect. Thus, as used in the present specification and figures, the term “continuous layer, sheet or foil” excludes discontinuous or discrete platelets or strips which merely connect one upper via filler to one lower via filler.

The office action notes that Cable discloses offset filled vias 160a, 160b and 160c in paragraph [0065] and in region Y of Figure 6. The office action further notes that the offset vias of Figure 6 of Cable are connected to each other by conductive layer 134 which is shown between vias 160b and 160c in Figure 6, but is not labeled with a number in Figure 6.

However, the conductive layer 134 in region Y of Figure 6 is a discontinuous, discrete platelet which connects only two vias 160b and 160c to each other. Conductive layer 134 is not a continuous layer, sheet or foil, as recited in claims 1 and 24. Thus, Cable does not anticipate claims 1 and 24 and claims which depend therefrom.

Furthermore, there is no motivation to modify the discontinuous, discrete platelet 134 of Cable which connects only two vias 160b and 160c to each other to form a continuous layer, sheet or foil. Thus, claims 1 and 24 are also not obvious over Cable.

The claimed continuous layer, sheet or foil provides several advantages over the discrete platelets of Cable. For example, the interconnect with a continuous layer, sheet or foil is simpler to fabricate than the discrete platelet because the discrete platelets require patterning and/or precise positioning to provide an electrical contact between filled offset vias. In contrast, the continuous layer, sheet or foil does not require specific patterning or precise positioning and can be simply formed on one of the ceramic layers of the interconnect, as recited in claim 24. Furthermore, if the discrete platelets are improperly positioned or misaligned, then the offset filled vias are not in electrical contact with each

other and the interconnect is rendered inoperative. In contrast, even if the continuous layer, sheet or foil is misaligned, it still provides electrical contact between most offset filled vias. Furthermore, the continuous layer, sheet or foil may be used instead of the gas separator layer 122 of Cable, thus simplifying the interconnect design and providing another unexpected benefit.

B. Claim 13

Claim 13 recites that each first filler is electrically connected to a plurality of the second fillers. In other words, each filled via on one side of the interconnecting body is electrically connected to more than one other offset filled vias on the opposite side of the interconnecting body. This provides an improved electrical connection between the filled vias.

In contrast, Cable teaches that each filled via 160b on one side of the conductive layer 134 is electrically connected to only one other filled via 160c on the other side of layer 134. Cable does not teach or suggest that a first filler is electrically connected to a plurality of the second fillers, as recited in claim 13 of the present application. Thus, Cable does not anticipate claim 13 or claims which depend therefrom.

Furthermore, there is no motivation to modify the discontinuous, discrete platelet 134 of Cable which connects only two vias 160b and 160c to each other to connect a via to more than one other offset via. Thus, claim 13 is also not obvious over Cable.

C. Claims 4, 15 and 29

Claims 4, 15 and 29 recite that each of the first fillers are electrically connected to each of the second fillers. In other words, all of the first fillers are electrically connected to all of the second fillers in the offset vias. Cable does not teach or suggest this limitation. Thus, Cable does not anticipate claims 4, 15 and 29 for this additional reason.

D. Claims 5, 16 and 28

Claims 5, 16, and 28 recite that the interconnecting body is unperforated. In other words, the conductive interconnecting body is continuous layer, sheet or foil that contains no perforations or through holes. This is advantageous because the interconnecting body also acts as a gas separator to prevent the fuel and air gases from flowing through the interconnect.

In contrast, Cable does not teach a continuous, unperforated, electrically conductive interconnecting body. Thus, Cable does not anticipate claims 5, 16 and 28 for this additional reason.

V. Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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